

REMARKS

This is in full and timely response to the non-final Office Action dated October 4, 2005 (Paper No. 20050930). The present Amendment amends the specification to address minor matters of form. New claims 9 and 10 have been added. No new matter has been added. Accordingly, claims 1, 3, 5, 7, 9 and 10 are presently pending in the application, each of which is believed to be in condition for allowance. Reexamination and reconsideration in light of the present Amendment and the following remarks are respectfully requested.

New Claims

Support for new claims 9 and 10 can be found variously throughout the specification, including, for example, page 6, lines 4-16, and page 9, line 24, to page 10, line 19. Since each of these new claims is clearly distinguishable from the applied art of record, allowance of the same is courteously solicited.

Claim Rejections- 35 U.S.C. § 103

In the Action, claims 1 and 3 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Application Publication No. 2002/0039167 to Kitahora et al. ("Kitahora") in view of U.S. Patent Application Publication No. 2003/0151710 to Tanaka et al. ("Tanaka"). This rejection is respectfully traversed.

Claim 1 recites, *inter alia*, a liquid crystal display element..., wherein **a twisted nematic type** liquid crystal material...satisfies dielectric constant anisotropy $\Delta\epsilon$ of $0 < \Delta\epsilon < 8$ and twist elasticity modulus K22 of **K22>6.0 pN** when the refractive index anisotropy Δn is $.16 \leq \Delta n \leq .18$.

The Office Action concedes that Kitahora **does not** disclose a twisted nematic type liquid crystal material satisfying a twist elasticity modulus K22 of K22>6.0 pN. Consequently, in order to establish a *prima facie* case of obviousness, not only must Tanaka disclose a twisted nematic type liquid crystal material satisfying a twist elasticity modulus K22 of K22>6.0 pN, but Tanaka must also provide sufficient motivation to combine this teaching with that of Kitahora. However, Tanaka clearly fails to remedy the conceded deficiencies.

As detailed on page 12, paragraph 163, Tanaka arguably discloses a twist elastic constant k_{22} of not more than 10 pN. However, Tanaka fails to disclose, teach or suggest **a twisted nematic type liquid crystal satisfying $K_{22} > 6.0$ pN**. In fact, as detailed on page 1, paragraph 3, Tanaka teaches away from using a twisted nematic mode with “slow response and a narrow viewing angle” and teaches that the liquid crystal is an OCB-type liquid crystal display. *See, e.g.*, page 1, paragraph 11, and page 3, paragraph 32.

Accordingly, at the very least, because Kitahora and Tanaka, alone or in combination, fail to disclose, teach or suggest a twisted nematic type liquid crystal material satisfying $K_{22} > 6.0$ pN as recited in claim 1 of the present application, a *prima facie* case of obviousness has not been established, and withdrawal of this rejection is respectfully requested. *See, e.g., In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *accord.* MPEP 2143.03.

Moreover, neither Kitahora nor Tanaka provide sufficient motivation or teaching for combining and modifying the references in the manner suggested in the Action. As established by Federal Circuit precedent, to establish a *prima facie* case of obviousness, the Action must provide some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. *See, e.g., Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985) (“To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references”); *In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987) (“When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references”; *ACS Hosp. Sys. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984) (“Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination”); *accord.* MPEP 2143.

It is established law that one “cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” *Ecolchem, Inc. v.*

Southern Cal. Edison Co., 227 F.3d 1361, 1371, 56 USPQ2d 1065 (Fed. Cir. 2000) (citing *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1780, 1783 (Fed. Cir. 1988)). Indeed, “[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight.” *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Moreover, “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

In the present case, one of ordinary skill would not be led to modify the Kitahora reference to incorporate the liquid crystal layer of Tanaka. As detailed above, Tanaka clearly teaches away from using a twisted nematic type liquid crystal display because of its “slow response time” and “narrow viewing angle” and instead suggests an OCB mode or R-OCB mode liquid crystal display. In contrast, Kitahora teaches of a twisted nematic type or super twisted nematic type liquid crystal. In essence, both Kitahora and Tanaka *clearly teach away* from the limitations recited in claim 1 of the present application, weakening the examiner’s proposed motivation to combine and modify the applied references. *See, e.g., In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997).

Accordingly, because neither Kitahora nor Tanaka provide sufficient motivation for combining and modifying the references in the manner indicated, the applied art is clearly inadequate, resulting in the Action having failed to satisfy the burden of establishing a *prima facie* case of obviousness. Withdrawal of the rejection of claim 1 under 35 U.S.C. § 103(a) is therefore courteously solicited.

Moreover, aside from the novel limitations recited therein, claim 3, being dependent upon allowable base claim 1, is also allowable at least by virtue of its dependency upon allowable claim 1. Withdrawal of the rejection of this claim is therefore courteously solicited.

In the Action, claims 5 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kitahora in view of Tanaka in view of U.S. Patent Application Publication No. 2002/0054266 to Nishimura (“Nishimura”). This rejection is respectfully traversed.

Claim 5 depends from claim 1. By virtue of this dependency, Applicant submits that claim 5 is allowable for at least the same reasons given above with respect to claim 1. In addition, Applicant submits that claim 5 is further distinguished over Kitahora, Tanaka and Nishimura by the additional elements recited therein, and particularly with respect to each claimed combination. Applicant respectfully requests, therefore, that the rejection of claim 5 under 35 U.S.C. § 103(a) be withdrawn, and this claim be allowed.

In the Action, claim 7 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,356,332 to Ichikawa et al. ("Ichikawa") in view of Kitahora in view of Tanaka. This rejection is respectfully traversed.

For reasons essentially similar to those set forth above with respect to the rejection of claim 1, Kitahora and Tanaka, either alone or in combination, fail to disclose, teach or suggest *at least* twisted nematic type liquid crystal material satisfying $K_{22} > 6.0$ pN as recited in claim 7. Further, although Ichikawa arguably discloses an optical system with three reflection liquid crystal devices, Ichikawa fails to disclose, teach or suggest *at least* twisted nematic type liquid crystal material satisfying $K_{22} > 6.0$ pN as recited in claim 7. *See, e.g.*, col. 14, lines 39-44. In addition, for at least the reasons set forth above in connection with the rejection of claim 1, Kitahora and Tanaka teach away from each other, such that the examiner has failed to provide sufficient motivation for combining these references. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 7, and withdrawal of this rejection is respectfully requested.

Conclusion

For at least the foregoing reasons, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the examiner is respectfully requested to pass this application to issue. If the examiner has any comments or suggestions that could place this application in even better form, the examiner is invited to telephone the undersigned attorney at the below-listed number.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2863/CIP from which the undersigned is authorized to draw.

Dated:

April 4, 2006

Respectfully submitted,

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